

### **Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

### **Listing of Claims:**

1. (Currently Amended) In a Java computing environment, a method of invoking a native method written in a **native** programming language ~~other than Java~~, said method comprising:  
providing a reference to one or more Java parameters on a Java execution stack, **wherein** said one or more Java parameters **are** ~~being parameters~~ associated with said native method;  
generating one or more native parameters based on said reference; and  
invoking said native method with said one or more native parameters.
2. (Original) A method as recited in claim 1, wherein said reference is provided to a set of macro instructions.
3. (Original) A method as recited in claim 2, wherein said set of macro instructions and said native method are written in the same programming language.
4. (Original) A method as recited in claim 3, wherein said set of macro instructions and said native method are written in C programming language.
5. (Original) A method as recited in claim 1, wherein said method further comprises:  
converting said at least one Java parameter to at least one native parameter suitable for use by said native method.
6. (Original) A method as recited in claim 5, wherein said converting is performed by a set of macro instructions.
7. (Original) A method as recited in claim 6, wherein said set of macro instructions and said native method are written in C or C++ programming languages.
8. (Original) A method as recited in claim 6, wherein said method further comprises:  
placing said at least one native parameter on a native execution stack; and

executing said native method using said at least one native parameter.

9. (Original) A method as recited in claim 1, wherein said at least one Java parameter is a Java reference object or a Java primitive data type.

10. **(Currently Amended)** In a Java computing environment, a method of invoking a native method written in a native programming language ~~other than Java~~, said method comprising:

providing a reference to one or more Java parameters on a Java execution stack, **wherein** said one or more Java parameters ~~being parameters~~ **are** associated with said native method;  
accessing at least one of said one or more Java parameters based on said reference;  
converting said at least one Java parameter to a native parameter suitable for said native programming language; and

wherein said converting is performed by a set of macro instructions written in said native programming language.

11. (Original) A method as recited in claim 10, wherein said native programming language is the C programming language.

12. (Original) A method as recited in claim 11,  
wherein said reference is provided directly to said set of macros; and  
wherein said set of macros operate to insulate the native method from the internals of a virtual machine that is invoking said native method.

13. (Original) A method as recited in claim 10, wherein said method further comprises:  
placing said at least one native parameter on a native execution stack; and  
executing said native method using said at least one native parameter.

14. (Original) A method as recited in claim 10, wherein said at least one Java parameter is a Java object or a Java primitive data type.

15-20. (Canceled)

21. **(Currently Amended)** A computer readable medium including computer program code for invoking a native method written in a native programming language ~~other than Java~~, said computer readable medium comprising:

computer program code for providing a reference to one or more Java parameters on a Java execution stack, wherein said one or more Java parameters ~~being parameters~~ are associated with said native method;

computer program code for generating one or more native parameters based on said reference; and

computer program code for invoking said native method with said one or more native parameters.

22. **(Previously Presented)** A computer readable medium as recited in claim 21, wherein said reference is provided to a set of macro instructions and said set of macro instructions when executed convert at least one Java parameter to at least one native parameter.

23. **(Previously Presented)** A computer readable medium as recited in claim 21, wherein said computer readable medium further comprises:

computer program code for converting at least one Java parameter to at least one native parameter.

24. **(Currently Amended)** A computer system for invoking a native method written in a native programming language ~~other than Java programming language~~, wherein said computer system comprises:

memory;

a Java execution stack;

at least one Central Processing Unit (CPU), wherein said at least Central Processing Unit operates to:

process a reference to one or more Java parameters that are stored on said Java execution stack, wherein said one or more Java parameters ~~being parameters associated with~~ are needed for invocation of said native method;

generate one or more native parameters based on said reference; and

invoke said native method with said one or more native parameters.

25. (Previously Presented) A computer system as recited in claim 24, wherein said at least Central Processing Unit further operates to:
- convert at least one of said one or more Java parameters to at least one native parameter.
26. (Previously Presented) A computer system as recited in claim 25,
- wherein said computer system further comprises a native execution stack, and
  - wherein said at least Central Processing Unit further operates to process said at least one native parameter on said native stack when said native method is invoked.
27. (New) A virtual machine for invoking a native method from a platform-independent program, wherein said virtual machine is capable of operating to:
- provide a direct reference to one or more parameters associated with said platform-independent programming language, wherein said one or more parameters are stored on a first execution stack,
  - generate, based on said direct reference, one or more native parameters associated with said native programming language; and
  - invoke said native method with said one or more native parameters.
28. (New) A virtual machine as recited in claim 27, wherein said platform-independent programming language is the Java programming language.
29. (New) A method for invoking a native method from a platform-independent program, wherein said method comprises:
- providing a direct reference to one or more parameters associated with said platform-independent programming language, wherein said one or more parameters are stored on a first execution stack and are needed to invoke said native method.
  - generating, based on said direct reference, one or more native parameters associated with said native programming language; and
  - invoking said native method with said one or more native parameters.
30. (New) A method as recited in claim 29, wherein said platform-independent programming language is the Java programming language.